

WHAT IS CLAIMED IS:

1. An air conditioning apparatus for a vehicle, comprising:

a case (20) forming an air passage; and

5 a cooling heat exchanger for cooling air, disposed in said case (20), wherein:

said cooling heat exchanger (21) has tubes (21a) forming a passage through which cooling fluid flows;

10 said cooling heat exchanger (21) is disposed in said case (20) to be inclined from a horizontal direction by a small angle (θ) so that air is introduced into said cooling heat exchanger (21) from below and flows upwardly;

15 said cooling heat exchanger (21) is inclined in the same direction as a longitudinal direction (B) of said tubes (21a); and

20 said cooling heat exchanger (21) is disposed so that a flow direction (A) of air flowing into a lower side of said cooling heat exchanger (21) is perpendicular to the longitudinal direction (B) of said tubes (21a).

2. The air conditioning apparatus for a vehicle according to claim 1, wherein:

said flow direction (A) of air is in a vehicle width direction; and

25 said longitudinal direction (B) of said tubes (21a) is in a vehicle front-rear direction.

3. An air conditioning apparatus for a vehicle,
comprising:

a blower unit (1) for blowing air; and

an air conditioning unit (2) for adjusting temperature
of air blown into a passenger compartment of the vehicle from
said blower unit (1), wherein:

said air conditioning unit (2) includes

a case (20) forming an air passage, and

a cooling heat exchanger (21), disposed in
said case (20), for cooling air;

said cooling heat exchanger (21) is disposed in said
case (20) to be inclined from a horizontal direction by a
small angle (θ) so that air is introduced into said cooling
heat exchanger (21) from below and flows upwardly;

said cooling heat exchanger (21) has tubes (21a)
forming a passage through which cooling fluid flows;

said cooling heat exchanger (21) is inclined in the
same direction as a longitudinal direction (B) of said tubes
(21a); and

said cooling heat exchanger (21) is disposed so that
a longitudinal direction (B) of said tubes (21a) is in a
vehicle front-rear direction and a flow direction (A) of air
blown from said blower unit (1) into a lower side of said
cooling heat exchanger (21) is in a vehicle width direction.

4. The air conditioning apparatus for a vehicle
according to claim 3, wherein:

said blower unit (1) is disposed to be shifted to a front passenger's seat side in a front portion of a passenger compartment of the vehicle; and

5 said air conditioning unit (2) is disposed at a center portion in the front portion of the passenger compartment.

10 5. The air conditioning apparatus for a vehicle according to any one of claims 2-4, wherein said cooling heat exchanger is disposed to be inclined so that a vehicle front side of said cooling heat exchanger (21) becomes higher and a vehicle rear side thereof becomes lower.

15 6. The air conditioning apparatus for a vehicle according to any one of claims 1-5, further comprising:

20 a heating heat exchanger (22) for heating air, said heating heat exchanger (22) being disposed on an upper side of said cooling heat exchanger (21) at a vehicle front side so that a bypass passage (23) through which air bypasses said heating heat exchanger (22) is formed at a vehicle rear side of said heating heat exchanger (22); and

25 an air mixing door (24), disposed between said cooling heat exchanger (21) and said heating heat exchanger (22), for adjusting a ratio between an amount of air passing through said heating heat exchanger (22) and an amount of air passing through said bypass passage (23),

 wherein said case (20) has a face opening portion (28) for blowing air toward an upper side of the passenger

compartment, at a vehicle rear side on an upper portion of
said case (20).